

Appl. No. 10/523,886
Reply to Office Action Dated 17 January 2006

AMENDMENTS TO THE ABSTRACT

Please replace the Abstract of the invention with the following amended paragraph:

The invention concerns a method for calculating the relative volumetric flow-rates of at least one of the phases of a multiphase effluent flowing in a well, ~~said method comprising a first step of acquiring~~ Firstly, the local volumetric fractions and/or velocities of said the phases across a section of the well at a certain depth is acquired. ~~The method further comprises: corrections of said~~ Then, the local volumetric fraction and/or velocity measurements is/are corrected in order to make them consistent with each other and/or with the effluent flow conditions[[: -]]. Subsequently, selection of a suitable flow model mathematically representing the effluent flow[[: -]] is selected. ~~Then, the interpolation of said~~ the local volumetric fraction measurements and/or said the local velocity measurements are interpolated by the selected flow model in order to obtain a volumetric fraction profile and/or a velocity profile for at least one phase of the effluent across ~~said the~~ the section of the well at ~~said the~~ the depth. [[: -]] Finally, calculation of the relative volumetric flow-rates of said the at least one phase are calculated by integration of ~~said the~~ the volumetric fraction and/or velocity profiles over ~~said the~~ the section of the well at ~~said the~~ the depth.